

CLAIMS:

1. An electrophoretic display panel (1), for displaying an image corresponding to image information, comprising:
 - a plurality of pixels (4), each containing an amount of an electrophoretic material,
 - 5 -an electrode arrangement (8, 9) associated with each pixel (4) for receiving a potential difference as defined by an update drive waveform (12); and
 - pixel drive means (10), for controlling said update drive waveform (12) of each pixel (4); characterized in that said drive means (10), at least in a portion of the display, is arranged only update a first subgroup of pixels (4) which, is arranged to display a greyscale in a
 - 10 current image frame (13) which differs from the greyscale displayed in a previous image frame (14), and hence said drive means is arranged to intentionally avoid to update a second subgroup of pixels (4) .
2. An electrophoretic display panel as in claim 1, wherein the greyscale to be
- 15 displayed by each of said pixels (4) of said second subgroup of pixels (4) is a most prevalent greyscale of the display panel.
3. An electrophoretic display panel as in claim 1 or 2, wherein the greyscale to be
- 20 displayed by each of said pixels (4) of said second subgroup of pixels (4) is essentially white.
4. An electrophoretic display panel as in any one of the claims 1-3, wherein the display panel further comprises an image information analyser (11) arranged to analyse the image information for a current image frame (13) to be displayed by the display panel with the image information of a previous image frame (14), the image information analyser (11)
- 25 being arranged to control said pixel drive means (10) so as to, at least in a portion of the display, only update a subgroup of pixels (4) which, as analysed by the image information analyser (11) is arranged to display a greyscale in the current image frame (13) which differs from the greyscale displayed in the previous image frame (14).
- 30 5. An electrophoretic display panel as in any one of the claims 1-4, wherein the pixels (4) is arranged in a matrix like fashion wherein the pixels are arranged along substantially straight addressing lines and along substantially straight data lines being substantially perpendicular to the addressing lines.

6. An electrophoretic display panel as in any one of the claims 1-5, wherein the update drive waveform (12) is provided with a reset portion between each data portion, during which the display panel is not addressed.
- 5 7. An electrophoretic display panel as in claim 6, wherein, during said reset portion all data lines are reset to a voltage of 0 V.
8. An electrophoretic display panel as in claim 5, wherein said pixel drive means (10) comprises a line addressing device, for commonly addressing an entire addressing line
10 of pixels, wherein the image information analyser (11) is arranged to control said pixel drive means (10) so as to only address (12) a subgroup of addressing lines comprising a pixel which, as analysed by the image information analyser (11) is arranged to display a greyscale in the current image frame (13) which differs from the greyscale displayed in the previous image frame (14).
- 15 9. An electrophoretic display panel as in any one of the preceding claims for use in a paper-like display, such as an electronic book, on which rows of characters to form a text to be displayed are arranged to be displayed on a substantially constant background.
- 20 10. An electrophoretic display panel as in claim 9, wherein the panel is programmed to display said rows of characters in a letter font being designed to maximise the number of addressing lines between each rows of characters for which the greyscale to be displayed will be constant for subsequent image frames.
- 25 11. An electrophoretic display panel as in any one of the preceding claims, wherein said pixel drive means (10) is connected with a look-up table, in which all possible update drive waveforms are stored.
12. An electrophoretic display panel as in claim 11, wherein said image
30 information analyser (11) is arranged to upload to said pixel drive means (10) only the update drive waveforms for the pixels or data lines which are to be addressed during the current frame.